



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JAN 13 2020

REPLY TO THE ATTENTION OF

ECW-15J

CERTIFIED MAIL 7018 3090 0002 2526 9918
RETURN RECEIPT REQUESTED

Ex. 6. (Personal Privacy) Owner

Ex. 6 (Personal Privacy) Dairy Farms

Ex. 6 (Personal Privacy)

Re: Inspection of Ex. 6 (Personal Privacy) Dairy Farms in Hudson, Michigan

Dear Ex. 6. (Personal Privacy)

Please find enclosed the report generated as a result of the inspection conducted by the U.S. Environmental Protection Agency on November 21-22, 2019, at Ex. 6 (Personal Privacy) Dairy Farms (facility), located at Ex. 6 (Personal Privacy). The purpose of the inspection was to evaluate and document compliance of this facility with the requirements of the Clean Water Act. During the inspection, EPA noted some potential areas of concern. Specifically, see the discussions on pages 18 through 20 of the included report. Please provide a written response to these areas of concern within 30 days of receipt of this letter. In your response, include a description of actions initiated to correct the noted areas of concern, including documentation of those actions.

If you have any questions or concerns regarding this letter or report, please contact Andi Hodaj of my staff at (312) 353-4645 or, via email at hodaj.andi@epa.gov.

Sincerely,

Molly Smith, Chief
Section 1
Water Enforcement and Compliance Assurance Branch

Enclosure

cc (via email): Rachel Burns, Michigan Environment, Great Lakes & Energy

**CWA COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5**

Purpose: Compliance Evaluation Inspection

Facility: Ex. 6 (Personal Privacy) Dairy Farms

Ex. 6 (Personal Privacy)

NPDES Permit Number: MIG010060

Date of Inspection: November 21 – 22, 2019

EPA Representatives: Andi Hodaj, Environmental Engineer, (312) 353-4645
hodaj.andi@epa.gov
Ben Atkinson, Agronomist, (312) 353-8243
atkinson.ben@epa.gov

State Representatives: Rachel Burns, Environmental Quality Analyst
(517) 416-4073
BurnsR6@michigan.gov

Facility Representatives: Ex. 6 (Personal Privacy) Owner, **Ex. 6. (Personal Privacy)**
Ex. 6. (Personal Privacy) Owner's spouse **Ex. 6. (Personal Privacy)**

Inspector Signature _____

Approver Signature: Molly Smith

Approval Date: 1/13/2020

1. BACKGROUND

The purpose of this report is to describe, evaluate and document the November 21 and 22, 2019 Ex. 6 (Personal Privacy) Dairy Farm (Facility) inspection and compliance with the Clean Water Act (CWA) at the Facility's Hudson, Michigan location. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended.

The Facility is located at Ex. 6 (Personal Privacy) and has been in operation since 1969. Figure 1 shows the location of the Facility. The Facility operates under a general National Pollutant Discharge Elimination System (NPDES) permit with the Certificate of Coverage number: MIG010060 (permit). The Facility currently maintains a total of 1,260 animal units of which approximately 850 are lactating cows. The rest are dry cows, heifers and calves.

The Facility will collect approximately 14.7 million gallons of manure, runoff, and wastewater annually and has four storage structures with a total capacity of approximately 9.2 million gallons. The facility land applies the wastewater in crop fields that it either owns or rents. The Facility has a total of 1,870 acres of cropland available for land application. Based on manure analysis, the manure contains roughly 104,000 pounds (lbs) of orthophosphate (P2O5) and 106,282 lbs of Nitrogen (N).

The Facility is adjacent to a wetland on the west which in turn is adjacent to an unnamed stream that flows approximately 1.4 miles south to Saint Joseph Creek. Saint Joseph Creek runs approximately 1.2 miles southwest to Bean Creek. Bean Creek flows southwest for approximately 37 miles into Tiffin River in Ohio. Tiffin River flows south approximately 51 miles to the Maumee River which flows west approximately 130 miles to Lake Erie.

Facility has no prior violations recorded by either EPA or the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

2. SITE INSPECTION

Table 1: Site Entry and Opening Conference

Arrival Time:	10:40 am EST
Temperature:	41°F
Estimated Precipitation within last 24 hours:	
Presented credentials?	Yes
Credentials presented to whom and at what time?	Ex. 6 (Personal Privacy) at 10:50 am Ex. 6 (Personal Privacy) and Ex. 6 (Personal Privacy) at 12:00 pm.

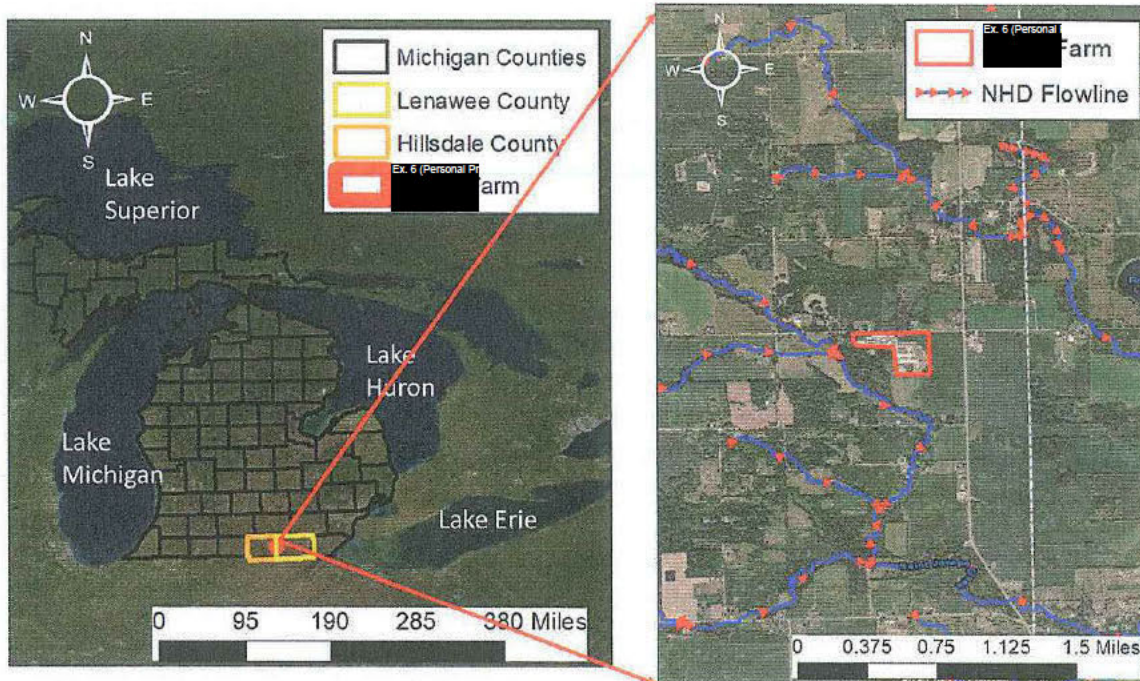


Figure 1. Map that shows the location of Ex. 6 (Personal Privacy) Dairy Farms production area.

Andi Hodaj, Ben Atkinson and Rachel Burns (collectively, "we") arrived at the Facility at approximately 10:40 am EST. We parked our car at the northeast corner of the main office. We wore disposable boots and prior to the inspection had received confirmation from the State of Michigan veterinarian that there were no reported cases of infectious animal diseases in animal feeding operations in Lenawee County.

Andi Hodaj called Ex. 6 (Personal Privacy) the owner, at 10:45 am and left a voicemail, notifying Ex. 6 (Personal Privacy) that EPA was at the Facility with the intention of conducting a CWA compliance evaluation inspection. As we walked around the Facility to try and locate an employee, we located and spoke with Ex. 6 (Personal Privacy) Herdsman at the Facility, to whom we presented our credentials at approximately 10:50 am. After a brief conversation with Ex. 6 (Personal Privacy) he suggested that we call the farm manager, Ex. 6 (Personal Privacy).

Andi Hodaj called Ex. 6 (Personal Privacy) at 10:55 am and explained who we were and the purpose of our visit. Ex. 6 (Personal Privacy) said that he would call Ex. 6 (Personal Privacy). At 11:04 am Ex. 6 (Personal Privacy) returned our call and said that he was approximately 45 minutes away and we should wait for him to be present before we could start our inspection.

At 12:00 pm we met Ex. 6 (Personal Privacy) and Ex. 6 (Personal Privacy) at the main office and presented our credentials. An opening conference was held where we discussed the regulatory purpose of the inspection and requested access to the Facility. We provided an outline of the inspection with a timeframe and requested a closing conference at the end of the inspection.

We informed Ex. 6 (Personal Privacy) of our Confidential Business Information (CBI) policy and asked them if there was any information that they consider CBI. Ex. 6 (Personal Privacy) stated that he considers images of the sand pond set-up to be CBI. We decided to do the tour of the Facility first before reviewing any documents, as it was getting late in the day and would return to the main office for records review after the tour.

Tour of the Facility

Figure 2 is an annotated aerial image of the Facility area that shows the names and locations of the structures inspected. We started from the office and walked southeast towards the north barn. The roof gutters and clean water diversions of the barns drained into a vegetated area between the barns and there was a tile riser that collected runoff and, according to Ex. 6 (Personal Privacy), was connected to an underground County Drain that ran south on the east edge of the Facility (photo 7).

On the east and southeast side of the Facility we observed the sand lane, where all the scrapped sand bedding from the barns goes, the settling pit, connected to the sand lane, and the sand stacking area where sand was left to dry and reused as bedding in the barns as shown in Figure 2. According to Ex. 6 (Personal Privacy), the settling pit was recently dug out and the sand was disposed at the stacking pad area next to it. Ex. 6 (Personal Privacy) stated that the current water depth in the settling pit was 4-5 feet. We did not observe a staff gauge in the settling pit. However, Ex. 6 (Personal Privacy) stated that there was a float control connected to a datalogger that recorded depths.

The area east of the Facility was cropland planted with what seemed like alfalfa. Any runoff from the east of the Facility would flow towards this cropland based on the slope of the terrain. We did not observe any runoff from the area east of the Facility.

On the south side of the Facility, we observed two wastewater storage structures, Pits 2 and 3. Pits 2 and 3 were both concrete structures with a combined storage capacity of 8.7 million gallons and with Pit 3 being the largest of the two. Pits 2 and 3 were connected via an overflow with Pit 2 draining into Pit 3 via gravity. We observed a freeboard of approximately 1 foot in Pit 1 and 4-5 ft in Pit 3. We did not observe any staff gauges in any of the pits. We did not observe any runoff from the south area of the Facility.

Along the south side of the south barn, we observed runoff from the gutters co-mingling with some runoff from the barn and entering a storm inlet that Ex. 6 (Personal Privacy) said is connected to the underground County Drain running south on the east of the Facility (photos 8 and 9).

On the west side of the Facility and north of Pit 3, we observed a weaning pen that had some standing contaminated water at the west edge of the pen. Ex. 6 (Personal Privacy) stated that the pen gets scrapped and the water drains east towards Pit 3 (photos 12 - 15).

We walked around the west side of the barns and observed some silage and water puddles on the side of the barns, but no runoff leaving the Facility area at the time of the inspection. The ground on the west side of the barns is sloped towards the wetland area.

North of the wetland, there were two heifer barns, a hoop barn, the feed storage area and a concrete leachate storage structure that collected leachate from the feed storage and manure from Pit 3. There was no staff gauge in the leachate storage structure and there was approximately 5 feet of freeboard. EX. 6 (Personal Privacy) stated that they hauled manure from the leachate storage (referred to as "bunker runoff") the morning of the inspection. We did not observe any runoff leaving this area of the Facility.

Next, we walked towards the calf hutch area located just north of the office as shown in Figure 2. The calf hutches did not have any secondary containment and they were located on an area that sloped north towards Stewart Road and where the underground County Drain's surface inlet was located (photos 43 - 48). We did not observe any runoff from the calf hatches area towards the County Drain.

At approximately 3:00 pm we convened back in the office to review records and ask questions about the Facility's operations. We used a checklist for the interview and the information we collected are summarized in Tables 2 – 9 below.



Figure 2. Aerial image of the Facility layout.

2.1 Interview of Operator and Owner and confirmation of Records Review
(The following Records Review tables reflect information provided after the walk-through of the Facility, unless otherwise noted.)

Table 2: Documents

Checklist(s) Used
R5 CAFO Inspection Checklist: Yes
Federal CAFO Nutrient Management Plan Checklist: No
Facility Documents Reviewed:
We were able to review very limited documents because Ex. 6. (Personal Privacy) stated that due to recent construction of the office a lot of documents were located off-site.

Table 3: Interview Questions for Facility Description with Owner/Operator

Type of Animal	Number of Animals	Capacity	Type of Confinement
Dairy	1,260		Free stall barns bedded with sand
Minimum Number of Animals in previous 5 years:			1,100
Maximum Number of Animals in previous 5 years:			1,260
Number of Animals that are stabled/confined and/or fed/maintained for 45 days or more in previous 12 months:			1,000
Amount of Liquid Manure Generated per year:			10 million gallons
Amount of Solid Manure Generated per year:			6,600 tons
Does the facility have an NPDES Permit?			Yes
Do animals have direct access to surface water?			No
Are crops, vegetation, forage growth, or post-harvest residues sustained in the normal growing season over any portion of the lot or facility where animals are kept?			No
What is the area (acres) of the production area?			68 acres
How many employees (not counting family members)?			16
Other facilities under common ownership (name and address):			No
Does the facility have as-builts of each storage structure's current design volume; which includes volume for solid accumulation, design for treatment volume, total design volume, volumes of the operational, emergency and freeboard volumes, and approximate number of days of storage capacity.			Yes, but not all of them were at the Facility.

Is manure stored for the short term including solid stacking areas, liquid manure catch basins (that must be pumped to permanent storage, etc.)? If yes, describe where it is stored, how it is drained and where it drains to	Solid manure is stored outside for a couple weeks before it is hauled to cropland.
Are records kept of the level of manure in the storage structures?	Yes. In the weekly visual inspections of the manure structures.
Available operating capacity as indicated by the depth gauge during the walk-through observe the operating capacity.	There was no depth gauge.
Do the facility personnel inspect and keep records of all clean water diversion devices? What types of diversion devices are inspected at the facility and how often are they inspected? Is this being documented?	Yes. Weekly inspections of the roof gutters are performed. However, records were not at Facility.
Do the facility personnel inspect and keep records of all storage structures?	Yes. Records not at Facility.
List the name of the storage structures for which records are kept and available at the time of the inspection?	No records available at the time of the inspection.
Do the facility personnel inspect and keep records of all the water lines, including drinking water and cooling water line leaks that above-ground piping and transfer lines, or an equivalent method of checking for water line leak that incorporates the use of water meters, pressure gauges, or some other monitoring device How often are water lines inspected and documented?	Yes. Records were provided.
Do the facility personnel perform routine visual inspections and keep records of the production area?	The Facility performs weekly visual inspections of manure storage structures mainly.
Does the waste storage system have a managed outfall or discharge point? If yes, provide a description of the outfall and a description of the area receiving the discharge.	No.
Has the facility had any documented discharges of livestock waste to surface water in the past year?	No.
Are there safety devices installed around any manure storage ponds? (Barriers at the end of manure push off platforms, fences around pond, signage.)	We observed partial fencing around the manure ponds but no signage.
Additional Information:	

Table 4: Livestock Waste Management

Describe the way manure is collected and disposed of at the facility:	
Manure at the facility is collected into 3 manure storage structures and hauled via trucks into cropfields owned or rented by the Facility according to its Comprehensive Nutrient Management Plan (CNMP).	
Describe the way used bedding is collected and disposed of at the facility:	
Bedding is scrapped daily into the sand lane and pushed into the settling pit.	
Are mortality records kept?	Yes. Not at Facility at the time of inspection.
Describe the way mortalities are managed at the facility:	
Animal carcasses are composted on site before being spread to cropfields along with other dry manure.	
What type of method is used to provide drinking water for the animals? (Drinkers with float system? Nipple waters? If nipple waters, is backflow prevention installed?)	Drinkers with a float system.
Describe the way spilled drinking water is collected and disposed of at the facility:	
All spilled water is collected when bedding is scrapped daily and drained towards the sand lane.	
Does the CNMP include appropriate practices that ensure that ensure chemicals and other contaminants handled at the CAFO are not disposed of in any CAFO waste or storm water storage or treatment system? Describe how chemicals are stored and how used or spilled chemicals are collected and disposed of at the facility:	
The CNMP states that hazardous or toxic chemicals are not disposed into manure storage structures, instead they are disposed at a hazardous waste landfill. According to the 2015 CNMP, the Facility has an emergency plan on the farm that provide instructions in handling chemical spills or accidents.	
Describe the way water that has been used to wash/flush barns are collected and disposed of at the facility:	
Wash water from barns is pushed to sand lane and then the settling pit.	

Describe where water comes from that is used to clean and/or flush. (Wells, city, etc.)	
The farm uses well water only, according to Ex. 6. (Personal Privacy)	
Describe the way feed is contained and how runoff from feed is collected and disposed of at the facility:	
Feed is covered in tarp with tires on top for stability and there is a leachate pond next to it that collects the runoff.	
If a dairy, describe how process wastewater from the plate cooler water is collected and disposed of at the facility:	
Ex. 6. (Personal Privacy) said that there is a collection tank in the parlor that collects plate cooler water. The collection tank is emptied to Pit 2.	
If a dairy, describe how process wastewater from the cleaning of the milking parlor is collected and disposed of at the facility:	
Wastewater from cleaning the milking tank is collected in the collection tank in the parlor and from there is emptied to Pit 2.	
If a dairy, how many times per day are cows milked?	3

Table 5: Land Application and Disposal of Manure and Process Wastewater

Does the facility perform and keep records of the manure testing?	Yes. Records were not on site at the time of inspection.
When was the last time a sample was taken of the manure and/or process wastewater?	Fall 2018
Describe the process to take the manure and/or process wastewater sample.	Grab samples
Number of acres available for land application:	2,200 acres
Are land application records kept?	Yes. There were some records at the farm at the time of inspection.
Who applies the manure and process wastewater to the fields?	Facility employees
Are weather conditions at time of application kept? (24 before – 24 after)	Yes
Does the facility perform and keep records of the soil testing?	Yes. No records at Facility at the time of the inspection.
Is manure transferred off-site to another party?	Yes.

Are manure transfer records maintained?	Yes
Do facility personnel perform periodic inspection of land application equipment?	Yes. No records at Facility.

Table 6: Nutrient Management Plan

NMP on site?	Yes
Has the CNMP been approved by a Certified CNMP Provider	Yes
Date NMP Submitted:	November 5, 2015
Name of the Certified CNMP Planner Name/Company:	Blue Wing Consulting, 9947 Highland Dr., Perrinton, Michigan 48871
Date that the NMP was last updated:	Ex. 6. (Personal Privacy) was not sure. He stated that it is updated as needed.
Map of the production area that includes all of the items specified (permit application): all clean water and production area waste flow paths, pipes, control structures, valves, etc.	Yes
Annual Report (AR) for the preceding January 1 through December 31 (reporting period) to EGLE by April 1st of each year.	Yes. The last one submitted to Michigan EGLE was for year 2018.
Does the AR include the following	
Average number of animals, maximum number of animals at any one time, and the type of animals, whether in open confinement or housed under roof	Yes
Estimated amount of total waste generated by the CAFO during the reporting period (tons or gallons)	Yes
Estimated amount of total CAFO waste transferred to other persons (manifested waste) by the CAFO during the reporting period (tons or gallons)	Yes
Total number of acres for land application covered by the	Yes

CNMP developed in accordance with the permit	
A field-specific spreading plan which identifies where and how much CAFO waste will be applied to fields for the upcoming 12 months what crops will be grown on those fields, and the realistic crop yield goals of those crops. The plan must account for all CAFO waste expected to be generated in the upcoming 12 months including waste to be transferred under manifest.	Yes
The following land application records for the reporting period for each field harvested during the reported period which utilized nutrients from previously-applied CAFO waste: actual crops planted, crop yield goals, actual crop yields, actual N and P content applied of land applied CAFO waste, calculations conducted and data used in accordance with Part 1 B.3.c. quantity of CAFO waste land applied (application rate), soil testing results, the amount any supplemental fertilizer applied, N credits from previous crops, total amount of N and P applied (all sources), and the basis for the application rate.	All are provided except, calculations conducted.
A statement indicating whether the current version of the CAFO's CNMP was developed or approved by a certified CNMP provider.	Yes
A summary of all CAFO waste discharges from the production area that have occurred during the reporting period, including	Yes

date, time, and approximate volume.	
The retained self-monitoring certification as required by Part II.C.3.	Yes
Storage Description:	
Amount of Manure Generated:	8,120,000 gallons of liquid manure
Capacity of Storage:	9,200,000 gallons
Duration of Storage:	180 days
Amount of Spreadable Land:	1,870 acres
Mortality Management Plan:	Composting and applying the compost to crop fields.
Clean Water Diversion System:	Yes. Roof gutters.
Direct Contact Prevention Plan:	Yes
Chemical Management Plan:	Yes
Conservation Practices:	Yes
Manure Testing Protocols:	Yes
Soil Testing Protocols:	Yes
Land Application Protocols:	Yes
Additional NMP comments:	None
Does the NMP reflect the current operational characteristics?	Yes
Are the number of acres owned/leased consistent with what is listed in the NMP?	Yes

Table 7: Land Application Logs (details of the records reviewed)

Fields available for application this year:	830 acres in 2018.
Are fields being land applied to that have not been approved by EGLE or in the facilities CNMP.	No
Timing limitation on fields:	Manure should be incorporated within 24 hours of application.
What is the date of the last manure and/or process wastewater samples	Fall 2018 according to Ex. 6 (Personal Privacy) There were no records at the Facility.
CAFO waste and/or process wastewater analyzed for TKN ammonium, total phosphorus.	There were no records at the Facility.
Soil tests for fields (for P) less than 3 years old? What is the date of the most current soil tests?	Yes. May 24, 2018.

Have soil tests been done for each of the fields the facility has applied to in the last 3 year?	Yes
Inspection of land application equipment documentation. Is this being documented and if so, for what equipment and how often?	No
Land application Equipment Calibration? Is this being documented, if so for what equipment, and how often?	No
Crop:	No
Application Rate:	Yes
Any of the land application fields soil tests results fall between (Bray 1) 75-149 ppm?	Yes
Which Fields?	(b) (6) House (NW), Pittsford (NW)
Is the facility applying at 1-year phosphorus removal rate as calculated using the Table 11 & 12 of Permit No. MIG01000?	No
Is the facility applying at a 2-year phosphorus removal rate calculated using the Table 11 & 12 of Permit No. MIG0100?	Yes
If 2-year rate is utilized, the land application log will specify the 2 nd year crop to be grown, and the reason why the 1-year rate is impractical.	Second year crop to be grown is specified but no reason is given on why the 1-year rate is impractical.
1-year N recommendation for next cropping year (MSU Extension Bulletin E2904) or 1-year N removal rate for legumes	Yes
Are any of the land application fields soil tests greater than 150 ppm of Phosphorus?	No
Has the facility land applied to those fields?	NA
Is EPA going to conduct walk-through of the land application field that have recently been land applied to and are owned or leased by the facility? Which fields does EPA to conduct a walk-around?	Yes. Field 20 and Field 21.
Has EGLE authorized the application of manure and/or process wastewater to those fields?	Yes

Has the facility documented the time, date, quantity, method, location, and application rate for each location at which the CAFO wastes are land applied?	Yes
The crop, realistic yield goal, and actual yield for each location at which CAFO wastes are land applied:	No
Did the facility document whether the land was frozen or snow-covered at the time of application?	No
If Yes, why did the facility apply to those fields and did they have approval from EGLE?	
Methodology and calculations showing the total nitrogen and phosphorus to be applied to each field receiving CAFO waste, identifying all sources of nutrients, including sources other than CAFO Waste	Not provided
The total amount of nitrogen and phosphorus actually applied to each field receiving CAFO waste, irrespective of the source, including documentation of calculations for total amount applied.	No
A written description of weather conditions at the time of application and for 24 hours prior to and following application based on visual observation.	Yes
Printouts of weather forecasts from the time of land application. Weather forecasts may also be saved as electronic files, which in case the files do not need to be physically located in the land application log, but the log shall reference the location where the files are stored.	No
Timing of land application:	Date only, not time.
Method of land application:	
Are the field specific assessments of all land application areas being conducted, if yes how is it documented for the following field-specific conditions:	
Slopes	No
Soil Types	No
Location of tile outlets, tile risers	No

Tile depth	No
Conservation Practices	No
Off-site conditions, such as buffers and distance or conveyance to surface waters.	No
Areas that have a potential for erosion due to topography, activities, or other factors.	No
Fields, or portions of fields, that will be used for surface application of CAFO waste without incorporation to frozen or snow-covered ground in accordance with Department 2005 Technical Standard for the Surface Application of CAFO waste on Frozen or Snow-Covered Ground Without Incorporation or Injection.	NA
Additional land application information:	None

Table 8: Facility Records (details of the records reviewed)

Diversion devices:	Yes
Impoundments:	Yes
Depth marker observations:	No
Water Lines:	Yes
Mortality handling:	No
Storage Structure Design:	Yes
Overflow records:	No
Crop Yields:	No
Land Application Dates:	Yes
Weather Conditions at time of application (24 before-24 after):	Yes
Test Methods for Manure Testing:	No records.
Test Methods for Soil Testing:	No
Manure Test Results:	No
Soil Test Results:	Yes. Records were sent via email after the inspection.
Calculations of N and P applied:	Yes
Application Methods:	Yes
Application Equipment Inspection Dates:	No

Table 9: NPDES Permit

Type of permit (General, individual)	General
Is a copy of the permit on site?	No
Date that the permit was issued:	May 10, 2016

Date that the permit will expire:	April 1, 2020
Does the permit contain a compliance schedule? If yes, provide a detailed description of the requirements and the status.	No
Have there been any changes made to the production area since the permit was issued? If yes, provide a detailed description.	There has been a ten percent increase in animal units.
Are there any practices in the permit that are not being done at the facility? (Records kept, inspections performed, etc.)	Record keeping is not being done according to the permit. There were no copies of the manure testing lab reports or soil testing lab reports at the Facility. No copy of the permit.

2.2 Closing Conference

We held our closing conference around 4:00 pm. We highlighted the good conditions of the manure storage structures at the farm and overall tidiness of the Facility. We also noted to Ex. 6 (Personal Privacy) some of our preliminary observations that included: the need for staff gauges in the manure storage structures, recordkeeping needs to be according to the NPDES permit, better housekeeping around the west end of the North and South Barns that slopes towards the wetland area, and installing containment for the calf hutches to prevent contaminated runoff from reaching the County Drain.

We reminded the Facility that compliance is the Facility's responsibility and observations were not a final determination of compliance. We also requested that the Facility submit a list of documents that they did not have on site at the Facility at the time of the inspection. The list included:

- Daily manure application records for 2019;
- Copies of as-built manure storage structures;
- Records of inspections of manure storage structures;
- Records of inspections of clean water diversion structures;
- Records of inspections of all water lines throughout the production area;
- Records of routine visual inspections of the production area;
- Mortality management records;
- The annual report for year 2018; and
- Lab reports from soil (last four years) and manure (for 2019) testing.

Ex. 6 (Personal Privacy) stated that the last manure sampling and testing was done sometime in the fall of 2018. We also informed Ex. 6 (Personal Privacy) of our intention to visit fields Schauer East and Schauer West the next day, November 22.

2.3 Field applications inspections

We arrived at Field Schauer East at 8:00 am on November 22, 2019. Field Schauer East is located southeast of the intersection of Defay Road and Meridian Highway. According to Ex. 6. (Personal Privacy) the Facility had applied 70,000 gallons of liquid manure on Field Schauer East on November 21, 2019. We walked around and across the field. We observed pooling liquid manure in a few spots, as shown in photos 57 – 60. Manure had not been incorporated yet. We did not observe any runoff from the field nor did we observe any waterways adjacent to the field, other than a small depression at the southwest corner of the field that had standing water. The depression was not connected to a waterway and it looked like the hauler had kept a 50 – 70 feet setback from it. We did not observe any tile risers in this particular field either.

At approximately 9:20 am we walked across the Meridian Highway to Field Schauer West. According to Ex. 6. (Personal Privacy) manure was last applied to this field on November 8, 2019. We observed a tile riser on the north side of the field in a depressed area with some water pooling around it but no visible flow into it (photo 71). On the west edge of the field we observed a stream (Kempton Drain) flowing south to Fisk Drain then to Bean Creek. There was pooling water on the field approximately 30 feet from Kempton Drain. However, we did not observe any flow towards the stream at the time of the inspection. We left Field Schauer West at 10:20 am and called Ex. 6. (Personal Privacy) to let him know.

Calculations of nutrients applied to these fields were not possible due to a lack of manure analysis reports. Facility did not have these reports on site and did not provide them after the inspection along with other records.

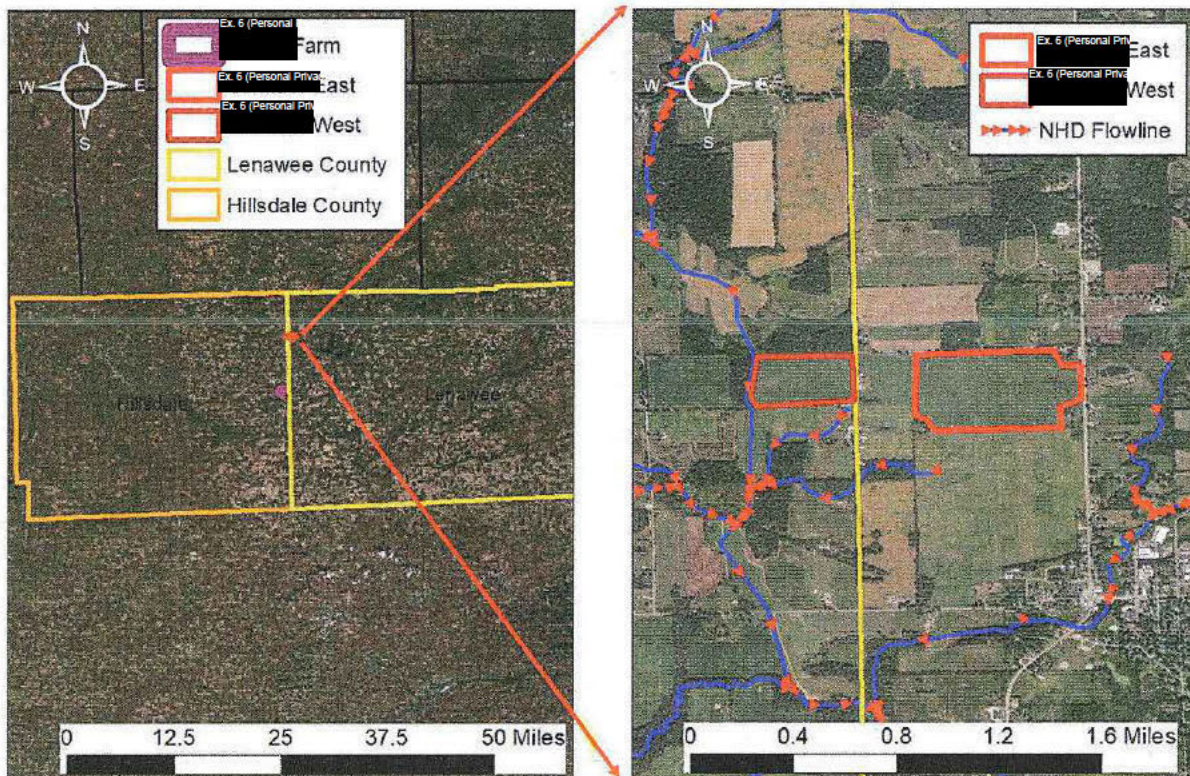


Figure 3. Map showing the locations of the Fields Ex. 6 (Personal Privacy) East and West.

3. Potential Areas of Concern

EPA observed the following potential areas of concern:

1. *Part I. Section B.1.b.1. of the permit requires that "CAFO waste storage structures shall include an easily visible, clearly marked depth gauge. Clear, major divisions shall be marked to delineate the operational, emergency, and freeboard volumes as specified in Part I.B.1.a."*

EPA did not observe any depth gauges at any of the manure storage structures at the Facility.

2. *Part I. Section B.2.b. of the permit requires that "The permittee shall design and implement structures and management practices to divert clean storm water to prevent contact with contaminated portions of the production areas. Clean storm water may include roof runoff, runoff from adjacent land, and runoff from feed or silage storage areas where such runoff has not contacted feed, silage, or silage leachate."*

EPA observed a concrete stormwater swale that, according to Ex. 6 (Personal Privacy), flowed to a stormwater underground County Drain with water that had come into contact with bedding material from the South Barn.

3. *Part I. Section B.2.d. of the permit requires that "Records of mortality handling and disposal shall be kept with the permittee's CNMP for a minimum of five years."*

Facility did not have any mortality records on site at the Facility at the time of the inspection. Ex. 6 (Personal Privacy) stated that Facility composts its mortalities and spreads the compost to its crop fields without analyzing the compost first. There were no records of compost applications.

4. *Part I. Section B.3.d. of the permit requires that "The permittee shall document in the log in writing, at a minimum, records required by Part I.B.3." Part I. Section B.3. of the permit requires that "CAFO waste shall be sampled a minimum of once per year to determine nutrient content and analyzed for total Kjeldahl nitrogen (TKN), ammonium nitrogen, and total phosphorus. Record the nutrient levels and analysis methods in the Land Application Log and include in the CNMP."*

Facility did not have records of waste nutrient analysis or documentation of the analysis methods on site and did not provide any records after the inspection.

5. *Part I. Section B.3.d. of the permit requires that "The permittee shall document in the log in writing, at a minimum, records required by Part I.B.3. and all of the following information and inspection results in the specified document: Annual Report Form - The total amount of nitrogen and phosphorus actually applied to each field receiving CAFO waste, irrespective of source, including documentation of calculations for the total amount applied"*

The Annual Reports for years 2018 and 2017 did not include any documentation of methodology and calculations used to determine the total amount of nutrients applied.

6. *Part I. Section B.3.f. of the permit requires that "CAFO waste shall be subsurface injected or incorporated into the soil within 24 hours of application."*

EPA observed a truck hauling manure from the production area's Leachate Storage pond at approximately 10:30 am on November 21, 2019. Ex. 6 (Personal Privacy) (b) (6) stated that manure was being applied to Field Schauer East that morning. On November 22, 2019, at 10:20 am, manure on Field Schauer East was not yet incorporated.

7. *Part I. Section B.4.e. of the permit requires that "Prior to a significant change in the operation of the CAFO,, the CNMP shall be revised and*

the revisions approved by a Certified CNMP Provider. ". "Significant change includes, but is not limited to, any of the following:

1) An increase in the number of animals that results in a greater than or equal to 10 percent increase in the volume of either the manure alone or the total CAFO waste generated per year as compared to the volumes identified in the application, as a cumulative total over the life of the COC"

The number of animals had increased more than 10% from 2017 to 2018, according to the Annual Reports submitted by the Facility. The version of the CNMP that the Facility had at the Facility was dated 2015 and Ex. 6 (Personal Privacy) was not sure if there was a recent update to the CNMP.

8. *Part I. Section C.12. of the permit requires that "Copies of all documents required by this permit, including the CNMP, Land Application Log, inspection records, etc., shall be kept at the permitted farm and made available to the Department upon request. "*

Part II. Section B.5. of the permit requires that "All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Department. "

The Facility did not have lab reports from manure and sample analysis on site. There were no Land Application Logs on site at the Facility, and no copy of the permit. However, the Facility did send via email to EPA, after the inspection, the Land Application Logs and the lab reports from soil testing.

9. EPA observed bedding and feed materials on the west side of the North and South Barns that could result in a runoff towards the wetland area to the west of the Facility. EPA also observed calf hutches with no secondary containment in an area that was sloped towards the inlet of a county stormwater drain.

4. Attachments

Attachment 1: Photolog

Dairy Farm
November 21 – 22, 2019

Attachment 1

Photolog

Dairy Farm

EPA Inspection November 21 - 22, 2019

All photos taken by Ben Atkinson, Agronomist, U.S. EPA

Camera: Ricoh WG-4 GPS



1: RIMG0001

Description: View east along north side mortality composting building.

Location: Northwest of mortality composting building.

Camera Direction: East

Date/Time: November 11/21/2019 12:16 PM



2: RIMG0002

Description: View north at south side of mortality composting building.

Location: Southeast of mortality composting building.

Camera Direction: North

Date/Time: 11/21/2019 12:18 PM



3: RIMG0003

Description: View northwest along south side of mortality composting building (right) with office/milking parlor (left).

Location: Southeast of mortality composting building.

Camera Direction: Northwest

Date/Time: 11/21/2019 12:18 PM



4: RIMG0004

Description: Looking southwest at east end of North Barn.

Location: Northeast of North Barn.

Camera Direction: Southwest

Date/Time: 11/21/2019 12:19 PM



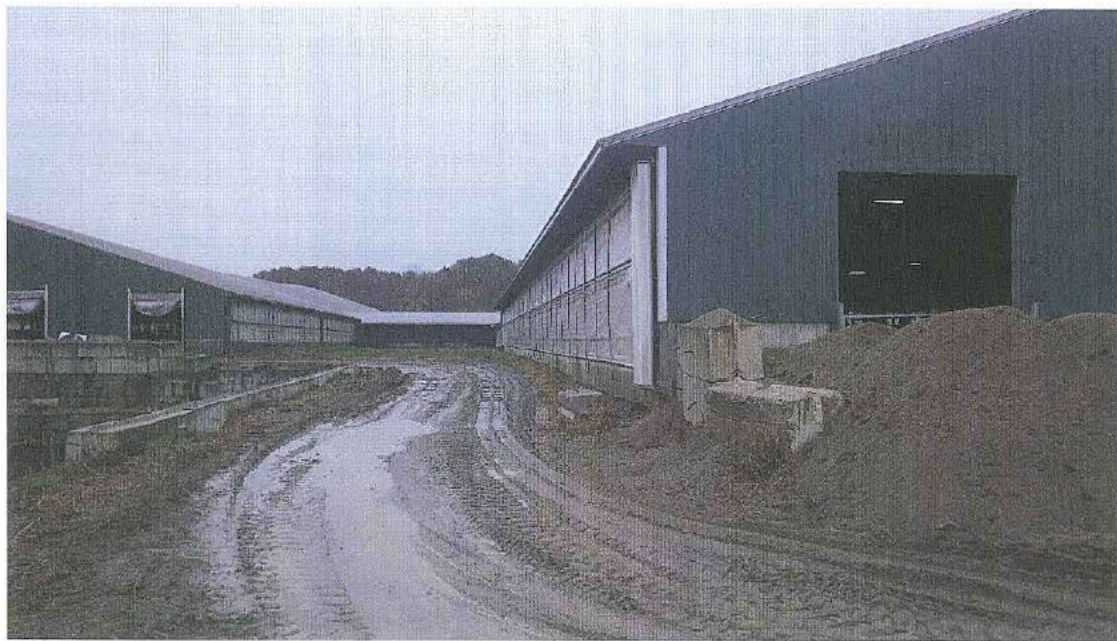
5: RIMG0005

Description: Looking south along eastern edge of manure Pit 2.

Location: Southeast corner of North Barn.

Camera Direction: South

Date/Time: 11/21/2019 12:20 PM



6: RIMG0006

Description: Looking west between North Barn (right) and South Barn (left).

Location: Southeast corner of North Barn.

Camera Direction: West

Date/Time: 11/21/2019 12:21 PM



7: RIMG0007

Description: Orange surface drain riser located in grassed area between North Barn (right) and South Barn (left).

Location: Between North Barn (right) and South Barn (left).

Camera Direction: West

Date/Time: 11/21/2019 12:23 PM



8: RIMG0008

Description: Looking west along south side of South Barn (right). Note concrete storm water swale leading to surface drain.

Location: Southeast side of South Barn.

Camera Direction: West

Date/Time: 12/21/2019 12:29 PM



9: RIMG0009

Description: Looking east along south side of South Barn. Note surface drain in the foreground and the stormwater swale along the edge of South Barn.

Location: Center of south side of South Barn.

Camera Direction: East

Date/Time: 11/21/2019 12:31 PM



10: RIMG0010

Description: Looking south between manure Pit 3 (right) and manure Pit 2 (left).

Location: South of South Barn.

Camera Direction: South

Date/Time: 11/21/2019 12:34 PM



11: RIMG0011

Description: Looking east along south side of manure Pit 2.

Location: Between manure Pit 2 and manure Pit 3 on the south end.

Camera Direction: East

Date/Time: 12/21/2019 12:38 PM



12: RIMG0012

Description: Looking north along west side of the outdoor lot associated with the Weaning Pen.

Location: Southwest corner of outdoor lot associated with the Weaning Pen.

Camera Direction: North

Date/Time: 11/21/2019 12:44 PM



13: RIMG0013

Description: Looking east along south side of the outdoor lot associated the Weaning Pen.

Location: Southwest corner of outdoor lot associated with the Weaning Pen.

Camera Direction: East

Date/Time: 11/21/2019 12:44 PM



14: RIMG0014

Description: Looking east along north side of the Weaning Pen.

Location: Northwest corner of the Weaning Pen.

Camera Direction: East

Date/Time: 11/21/2019 12:45 PM



15: RIMG0015

Description: Looking south along west the Weaning Pen and associated outdoor lot.

Location: Northwest corner of the Weaning Pen.

Camera Direction: South

Date/Time: 11/21/2019 12:45 PM



16: RIMG0016

Description: Looking south along east side of the Weaning Pen and associated outdoor lot.

Location: Northeast corner of the Weaning Pen.

Camera Direction: South

Date/Time: 11/21/2019 12:58 PM



17: RIMG0017

Description: Looking north along west access road. South Barn in right foreground. North Barn in distance to the right.

Location: Southwest corner of South Barn.

Camera Direction: North

Date/Time: 11/21/2019 12:59 PM



18: RIMG0018

Description: Western edge of west access road west of North Barn.

Location: West of southwest corner of North Barn.

Camera Direction: Northwest

Date/Time: 11/21/2019 1:00 PM



19: RIMG0019

Description: Looking south along western edge of west access road. South Barn in distance left and the Weaning Pen in distance right.

Location: West of North Barn.

Camera Direction: South

Date/Time: 11/21/2019 1:09 PM



20: RIMG0020

Description: West end of North Barn.

Location: Northwest corner of North Barn.

Camera Direction: South

Date/Time: 11/21/2019 1:11 PM



21: RIMG0021

Description: Looking west along south side of Heifer Barn 1.

Location: Southeast of Heifer Barn 1.

Camera Direction: West

Date/Time: 11/21/2019 1:12 PM



22: RIMG0022

Description: Looking north at south side of Heifer Barn 2.

Location: Southeast of Heifer Barn 1.

Camera Direction: North

Date/Time: 11/21/2019 1:13 PM



23: RIMG0023

Description: Looking northwest along manure pushout to Leachate Storage.

Location: Between Heifer Barn 1 and Heifer Barn 2.

Camera Direction: Northwest

Date/Time: 11/21/2019 1:14 PM



24: RIMG0024

Description: Looking east along southern edge of Heifer Barn 1.

Location: Southwest corner of Heifer Barn 1.

Camera Direction: East

Date/Time: 11/21/2019 1:18 PM



25: RIMG0025

Description: Looking west along access road on northwest portion of facility. Note pond in depressional area to the left.

Location: South of Hoop Barn.

Camera Direction: West

Date/Time: 11/21/2019 1:20 PM



26: RIMG0026

Description: Looking north along west end of Hoop Barn (right) and silage mound (left).

Location: Southwest corner of Hoop Barn.

Camera Direction: North

Date/Time: 11/21/2019 1:21 PM



27: RIMG0027

Description: Looking south toward pond in depressional area south of access road.

Location: Southwest corner of Hoop Barn.

Camera Direction: South

Date/Time: 11/21/2019 1:22 PM



28: RIMG0028

Description: Looking north along west end of Hoop Barn (right) and silage mound (right).

Location: Southwest corner of Hoop Barn.

Camera Direction: North

Date/Time: 11/21/2019 1:23 PM



29: RIMG0029

Description: Looking south toward pond in depressional area south of access road.

Location: Southwest corner of Hoop Barn.

Camera Direction: South

Date/Time: 11/21/2019 1:23 PM



30: RIMG0030

Description: Looking east along southern edge of western silage mound.

Location: Southwest corner of silage mound.

Camera Direction: East

Date/Time: 11/21/2019 1:25 PM



31: RIMG0031

Description: Looking south along western edge of silage mound.

Location: Northwest corner of silage mound.

Camera Direction: South

Date/Time: 11/21/2019 1:27 PM



32: RIMG0032

Description: Looking east along northern edge of western silage mound.

Location: Northwest corner of silage mound.

Camera Direction: East

Date/Time: 11/21/2019 1:27 PM



33: RIMG0033

Description: Looking east along northern edge of silage mound.

Location: North side of silage storage area.

Camera Direction: East

Date/Time: 11/21/2019 1:30 PM



34: RIMG0034

Description: Waste silage and snow from road clearing activities on west side of west access road off of Stewart Road.

Location: North side of silage storage area just south of Stewart Road.

Camera Direction: East

Date/Time: 11/21/2019 1:31 PM



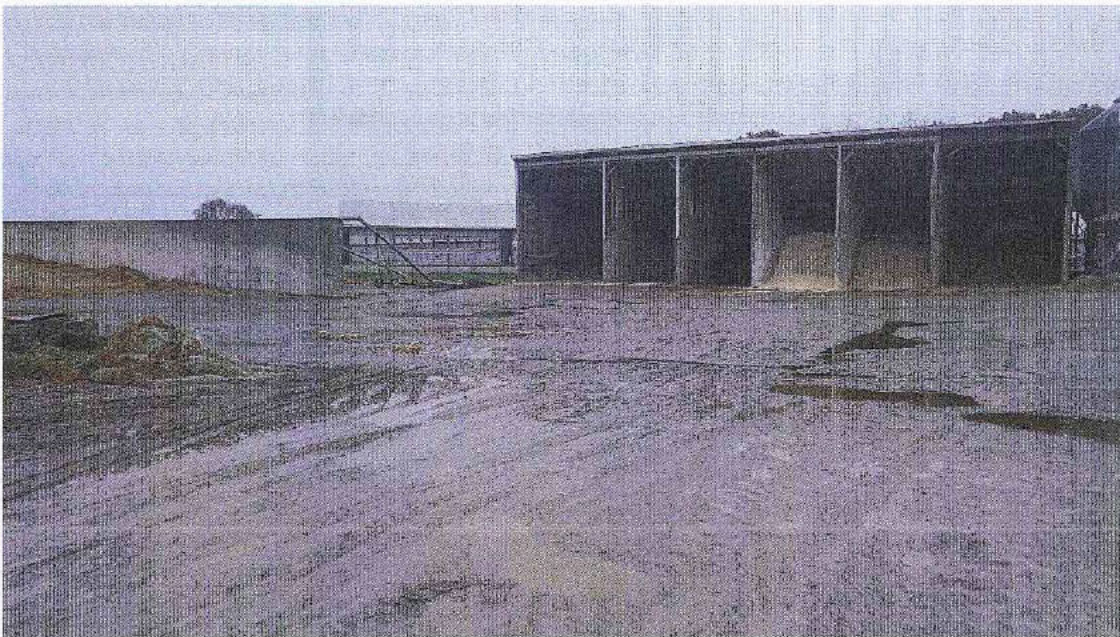
35: RIMG0035

Description: North side of commodity barn north of Leachate Storage pond.

Location: Silage storage area entrance off of Stewart Road.

Camera Direction: South

Date/Time: 11/21/2019 1:32 PM



36: RIMG0036

Description: North side of commodity barn north of Leachate Storage pond.

Location: Silage storage area entrance off of Stewart Road.

Camera Direction: Southeast

Date/Time: 11/21/2019 1:33 PM



37: RIMG0037

Description: North side of commodity barn north of Leachate Storage pond.

Location: Silage storage area entrance off of Stewart Road.

Camera Direction: Southeast

Date/Time: 11/21/2019 1:34 PM



38: RIMG0038

Description: Sign at entrance to farm.

Location: Main entrance off of Stewart Road east of silage storage area.

Camera Direction: West

Date/Time: 11/21/2019 1:36 PM



39: RIMG0039

Description: Main entrance off of Stewart Road east of silage storage area.

Location: Northwest of main entrance off of Stewart Road east of silage storage area.

Camera Direction: Southeast

Date/Time: 11/21/2019 1:37 PM



40: RIMG0040

Description: Main entrance off of Stewart Road east of silage storage area.

Location: Northwest of main entrance off of Stewart Road east of silage storage area.

Camera Direction: Southeast

Date/Time: 11/21/2019 1:37 PM



41: RIMG0041

Description: East side of main entrance off of Stewart Road east of silage storage area.

Location: Northeast corner of main entrance off of Stewart Road east of silage storage area.

Camera Direction: South

Date/Time: 11/21/2019 1:37 PM



42: RIMG0042

Description: Pond/wetland area north of Stewart Road.

Location: North of main entrance off of Stewart Road east of silage storage area.

Camera Direction: North

Date/Time: 11/21/2019 1:38 PM



43: RIMG0043

Description: Pipe outlet on south side of Stewart Road conveying flow from the pond/wetland area north of Stewart Road.

Location: East of main entrance off of Stewart Road.

Camera Direction: South

Date/Time: 11/21/2019 1:38 PM



44: RIMG0044

Description: Looking north along east side of main entrance.

Location: Main entrance south of Stewart Road.

Camera Direction: North

Date/Time: 11/21/2019 1:45 PM



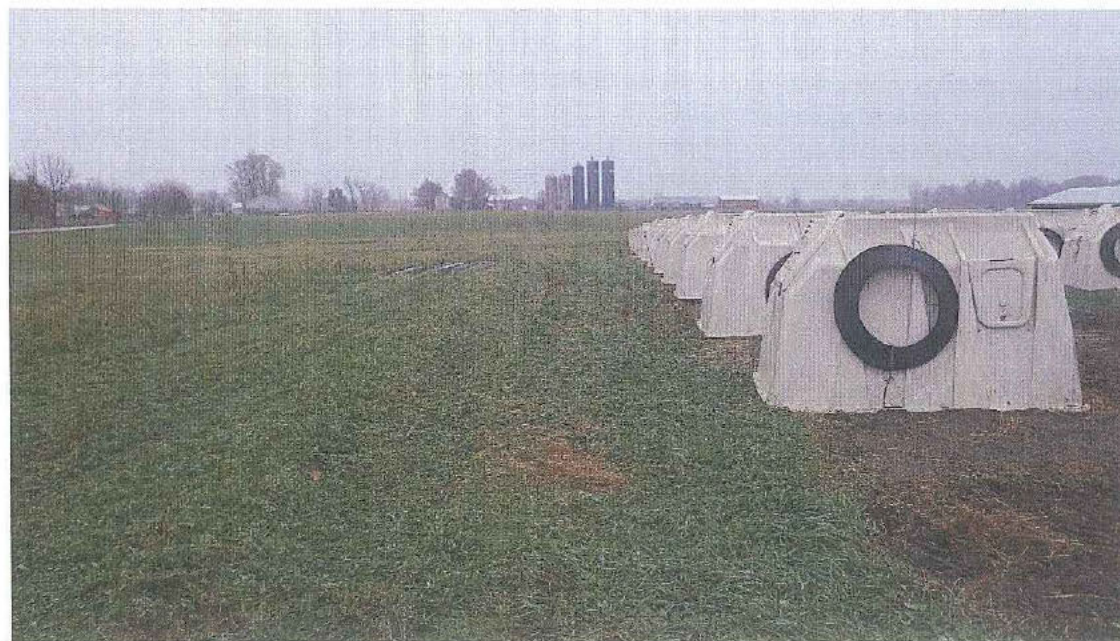
45: RIMG0045

Description: Looking east along northern edge of calf hutch area.

Location: Northwest corner of calf hutch area.

Camera Direction: East

Date/Time: 11/21/2019 1:48 PM



46: RIMG0046

Description: Looking east along northern edge of calf hutch area.

Location: Center of north side of calf hutch area.

Camera Direction: East

Date/Time: 11/21/2019 1:53 PM



47: RIMG0047

Description: Looking west along northern edge of calf hutch area.

Location: Center of north side of calf hutch area.

Camera Direction: West

Date/Time: 11/21/2019 1:53 PM



48: RIMG0048

Description: Manure from cleaning out of manure hoses in field north of calf hutch area.

Location: Northeast corner of calf hutch area.

Camera Direction: West

Date/Time: 11/21/2019 1:55 PM



49: RIMG0049

Description: Example land application maps.

Location: NA

Camera Direction: NA

Date/Time: 11/21/2019 3:55 PM



50: RIMG0050

Description: Example land application maps

Location: NA

Camera Direction: NA

Date/Time: 11/21/2019 3:55 PM



51: RIMG0051

Description: Outlet of pipe (submerged) conveying flow from pipe under Stewart Road.

Location: South of facility.

Camera Direction: South

Date/Time: 11/21/2019 4:48 PM



52: RIMG0052

Description: Looking north toward facility at location of outlet pipe conveying flow from pipe under Stewart Road.

Location: South of facility.

Camera Direction: North

Date/Time: 11/21/2019 4:48 PM



53: RIMG0053

Description: Manure application equipment at location of 11/21/2019 application

Location: South side of Defay Road approximately 1300 feet east of the intersection of Defay Road and Meridian Road. Field Schauer East.

Camera Direction: West

Date/Time: 11/22/2019 8:14 AM



54: RIMG0054

Description: Land Application site approximately 18-24 hours following application.

Location: Field [REDACTED] East.

Camera Direction: East

Date/Time: 11/22/2019 8:14 AM



55: RIMG0055

Description: Land application at Field Ex. 6 (Personal Privacy) East.

Location: Field Ex. 6 (Personal Privacy) East

Camera Direction: South

Date/Time: 11/22/2019 8:21 AM



56: RIMG0056

Description: Land application at Field Ex. 6 (Personal Privacy) East.

Location: Field Ex. 6 (Personal Privacy) East.

Camera Direction: North

Date/Time: 11/22/2019 8:21 AM



57: RIMG0057

Description: Land application at Field [REDACTED] East.

Location: Field [REDACTED] East.

Camera Direction: North

Date/Time: 11/22/2019 8:22 AM



58: RIMG0058

Description: Land application at Field [REDACTED] East.

Location: Field [REDACTED] East.

Camera Direction: South

Date/Time: 11/22/2019 8:23 AM



59: RIMG0059

Description: Land application at Field Ex. 6 (Personal Privacy) East approximately 18-24 hours after application.

Location: Field Ex. 6 (Personal Privacy) East.

Camera Direction: South

Date/Time: 11/22/2019 8:24 Am



60: RIMG0060

Description: Land application at Field Ex. 6 (Personal Privacy) East approximately 18-24 hours after application.

Location: Field Ex. 6 (Personal Privacy) East.

Camera Direction: Northwest

Date/Time: 11/22/2019 8:26 AM



61: RIMG0061

Description: Wetland area in the southwest corner of the Field Ex. 6 (Personal Privacy) East.

Location: Southwest corner of Field Ex. 6 (Personal Privacy) East.

Camera Direction: South

Date/Time: 11/22/2019 8:31 AM



62: RIMG0062

Description: Description: Land application at Field Schauer East approximately 18-24 hours after application.

Location: Field southeast of the intersection of Defay Road and Meridian Road.

Camera Direction: Southwest

Date/Time: 11/22/2019 8:38 AM



63: RIMG0063

Description: Land application at Field Ex. 6 (Personal Privacy) East approximately 18-24 hours after application.

Location: Field Ex. 6 (Personal Privacy) East.

Camera Direction: South

Date/Time: 11/22/2019 8:46 AM



64: RIMG0064

Description: Land application at Field Ex. 6 (Personal Privacy) East approximately 18-24 hours after application.

Location: Field Ex. 6 (Personal Privacy) East.

Camera Direction: North

Date/Time: 11/22/2019 8:48 AM



65: RIMG0065

Description: Land application at Field [REDACTED] East approximately 18-24 hours after application.

Location: Field [REDACTED] East.

Camera Direction: North

Date/Time: 11/22/2019 8:49 AM



66: RIMG0066

Description: Land application field at Field [REDACTED] West, located southwest of the intersection of Defay Road and Meridian Road. Manure was last applied on November 8, 2019.

Location: Field [REDACTED] West.

Camera Direction: West

Date/Time: 11/22/2019 9:22 AM



67: RIMG0067

Description: Land application at Field Ex. 6 (Personal Privacy) West. Manure was last applied on November 8, 2019.

Location: Field Ex. 6 (Personal Privacy) West

Camera Direction: West

Date/Time: 11/22/2019 9:30 AM



68: RIMG0068

Description: Stream along west edge of the Field Ex. 6 (Personal Privacy) West.

Location: West end of Field Ex. 6 (Personal Privacy) West.

Camera Direction: South

Date/Time: 11/22/2019 9:33 AM



69: RIMG0069

Description: Field tile protruding from the eastern bank of the stream flowing along the west edge of the Field Schauer West.

Location: stream flowing along the west edge of the Field [REDACTED] West.

Camera Direction: Northwest

Date/Time: 11/22/2019 9:34 AM



70: RIMG0070

Description: Water pooling at west side of Field [REDACTED] West near the stream. Manure was last applied on November 8, 2019.

Location: Field [REDACTED] West.

Camera Direction: North

Date/Time: 11/22/2019 9:40 AM



71: RIMG0071

Description: Field tile surface inlet located on the northern side of Field Ex. 6 (Personal Privacy) West.

Location: North side of Field Ex. 6 (Personal Privacy) West.

Camera Direction: North

Date/Time: 11/22/2019 9:51 AM